

CLAIMS

1. A door opener-closer, comprising:
 - a door handle;
 - 5 a flexible antenna including a magnetic body core made of a soft magnetic body, received in the door handle and serving as a transmitter-receiver communicating with a portable device;
 - a handle body having a backface side formed with a cover receiver;
 - a cover handle united with the antenna and made of a plastic resin, the cover
 - 10 handle mating with the cover receiver in such a manner as to be held by the cover receiver; and
 - a sensor for sensing at least one of the followings which are implemented by an operator carrying the portable device:
 - approaching a door,
 - 15 contacting the door, and
 - operating the door,
 - to thereby allow the transmitter-receiver and the portable device to communicate with each other, thus locking or unlocking the door.
- 20 2. The door opener-closer as claimed in claim 1, wherein
 - the cover handle has a first end side and a second end side respectively provided with a first engagement protrusion and a second engagement protrusion,
 - the cover receiver has a first end side and a second end side respectively provided with a first engagement and a second engagement, and
 - 25 the first engagement protrusion and the second engagement protrusion are respectively engageable with the first engagement and the second engagement.
3. The door opener-closer as claimed in claim 1, wherein
 - the sensor is united with the antenna.
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4. The door opener-closer as claimed in claim 2, wherein
 - the sensor is united with the antenna.
5. The door opener-closer as claimed in claim 1, wherein
 - 35 the door handle is applied to an outside door handle device for a vehicle.

6. A door handle, comprising:
a grip for operating a door;
a plastic antenna communicating with a portable device for operating a lock
5 gear of the door; and
an engagement gear for engaging the grip with the plastic antenna.
7. The door handle as claimed in claim 6, wherein
the antenna includes:
10 a flexible base for covering the grip, and
a plastic magnetic body united with the flexible base.
8. The door handle as claimed in claim 7, wherein
the antenna includes a protrusion extending from the flexible base, and
15 the grip includes a nail extending toward the door and engaged with the
protrusion.
9. A keyless entry system, comprising:
a door handle for operating a door;
20 a lock gear for locking the door; and
a controller for operating the lock gear, the controller including:
a portable device,
a plastic antenna communicating with the portable device, and
an engagement gear for engaging the antenna with the door handle.